

THE GENUS *GOMPHIDIA* SELYS IN CHINA (ODONATA, GOMPHIDAE)

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Abstract This paper deals with 4 species and 1 subspecies of the genus *Gomphidia* Selys in China. *Gomphidia interruptistria* is described as new to science. The type specimen is deposited at the Institute of Zoology, Shaanxi Normal University, Xi'an, China. A key to the Chinese species of the genus is provided.

Key words Odonata, Gomphidae, *Gomphidia*, new species, China.

The genus *Gomphidia* was founded by Selys in 1854, and its type species is *Gomphidia t-nigrum* Selys (1854). There are 25 species known in the world (Martin *et al.*, 2004), distributed in Oriental Region and Africa (Zhao, 1990). The main characters of this genus are: large, stout, blackish, short legged dragonflies; appendages black, inferior appendages short, less than 1/3 length of superior appendages; posterior penis lobe wanting, a pair of flagella curling like clockwork springs (Zhao, 1990). To date, 3 species and 1 subspecies have been reported in China (Hua, 2000). The present paper reports 4 species and 1 subspecies in China. *Gomphidia interruptistria* is described as new to science. The type specimen is deposited at the Institute of Zoology, Shaanxi Normal University.

Checklist of *Gomphidia* in China

- 1) *Gomphidia confluens* (Selys, 1878) (China, Hebei, Shanxi, Henan, Hubei, Jiangsu, Jiangxi, Zhejiang, Fujian, Taiwan, Hunan, Guangxi; Japan; Vietnam).
- 2) *Gomphidia interruptistria* sp. nov. (China, Yunnan).
- 3) *Gomphidia kelloggi* (Needham, 1930) (China, Fujian, Hainan).
- 4) *Gomphidia kruegeri fukienensis* (Chao, 1955) (China, Fujian, Taiwan).
- 5) *Gomphidia kruegeri kruegeri* (Martin, 1904) (China, Fujian, Guangdong, Hainan, Yunnan; Vietnam).

Key to species and subspecies of *Gomphidia* in China

1. Dorsal stripe connected with collar stripe 2
Dorsal stripe not connected from collar stripe 3
2. Occiput yellow, bordered in black *G. confluens*
Occiput black *G. kelloggi*
3. Dorsal stripe not connected from both superior spot and collar stripe *G. interruptistria* **sp. nov.**
Dorsal stripe connected with superior spot or collar stripe shaped like the figure 7 4
4. Postclypeus black, lateral stripes of 2 and 3 confluent at several points and including two yellow spot between them *G. k. kruegeri*
Postclypeus blackish brown, with a yellow spot on each side; lateral stripes of 2 and 3 integrated and connected by a transversal stripe ar

long the lower suture of the spiracle *G. k. fukienensis*

Gomphidia interruptistria **sp. nov.** (Figs. 1-11)

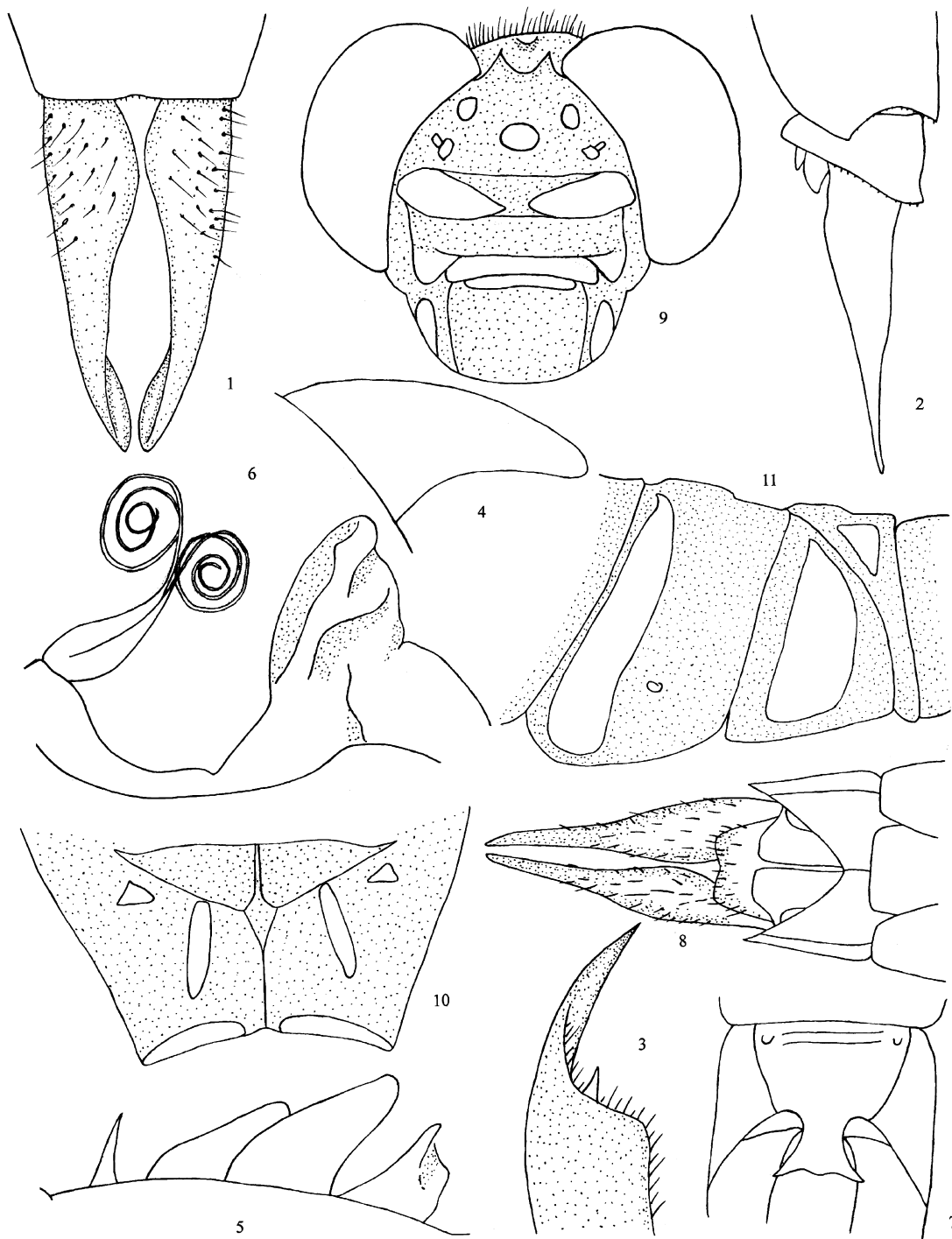
Male. Labrum black, except a small yellowish brown, median basal spot. Anteclypeus yellow. Postclypeus black, except a big yellow triangle on each basal side. Outside of mandible mostly black, except a big yellow triangle on each basal sides. Labium black. Frontal stripes form two separated long yellow trapezoid, cover half of top of frons; frontal and hind frons' edge almost parallel. Vertex black, with a pair of big tubers, pointed at the top of it. Occiput black, with a big round tuber in the center of the rear, its hind edge with some tawny hairs. (Fig. 9)

Prothorax wholly black. Collar stripes interrupted in the center, slightly broader than dorsal stripes which disconnected from the former. Superior spots on both sides form into a pair of small yellow triangles (Fig. 10). Lower stripe wanting. Lateral stripes of 2 and 3 wholly combined with each other (Fig. 11). Legs short and wholly black. Wings black and hyaline. Penis's posterior lobe wanting, with a pair of flagella curling like clockwork springs (Figs. 3-6).

Abdomen mostly black, Segments 1-2 wholly blackish brown (Fig. 7); yellowish brown elongate basal, mid-dorsal triangle on 3; shorter, narrower and very unclear on 4-6; expand into a basal half ring of bright yellow on 7 and occupy 2/5 the length of this segment; 8-10 wholly black. Appendages black (Figs 1, 2, 8). Terminal segments slightly compressed and segments 7-9 with mid-dorsal distinct carinate.

Length: abdomen (include appendages) 57 mm; appendage 3.5 mm; hind wing 49 mm; pterostigma 7.5 mm.

Distribution. China (Yunnan).



Figs 1-11. *Gomphidia interruptistria* sp. nov., ♂. 1. Superior appendages, dorsal view. 2. Appendages, lateral view. 3. Anterior hamule, lateral view. 4. Posterior hamule, lateral view. 5. Accessory organs, lateral view. 6. Penis, lateral view. 7. Segment 1 of abdomen, ventral view. 8. Terminal abdomen, ventral view. 9. Head, frontal view. 10. Shoulder, dorsal view. 11. Synthorax, lateral view.

Female and nymph. Unknown.

Holotype ♂, Yaoqu, Mengla, Yunnan, China (21.44°N, 101.32°E), 1 000 m, 28 July 2004, collected by ZHA Ling Sheng.

Etymology. The name *interruptistria* is derived from the Latin words *interruptus* (interrupted) and

stria (stripe), which refers to the interruption occurs not only between dorsal stripe and collar stripe, but also between dorsal stripe and superior spot of the new species.

This new species is similar to *G. k. kruegeri* (Martin, 1904) and *G. k. fukienensis* (Chao,

1955), but differs in the following characters as Table 1.

Table 1. Comparisons of characers among new species and *G. k. kruegeri* and *G. k. fukienensis*.

| | <i>G. interruptistria</i> sp. nov. | <i>G. k. kruegeri</i> | <i>G. k. fukienensis</i> |
|---------------------------------|---|---|--|
| Prothorax | Spot wanting | Yellow spots | Yellow spots |
| Lateral stripes of 2 and 3 | Combined together without yellow spot | Combined together with yellow spots | Partly combined together with yellow spots |
| Edge of costa of wings | Black | Punctate with yellow | Punctate with yellow |
| Lower stripe | Wanting | Present | Present |
| Dorsal stripe and collar stripe | Disconnected; dorsal stripe short, narrow and disconnected from superior spot | Connected into “7” | Close, but not connected; dorsal strip broad, long and connect with superior spot into “7” |
| Segments of abdomen | No spot on 1-2; yellow half ring on 7; wholly black on 8-10 | No spot on 1; yellow half ring on 7; spots on 8, 10 | Spots on 1-2; no spot on 7; spots on 8, 10 |
| Appendages | Black | Black | Yellowish black |

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中国小叶春蜓属研究 (蜻蜓目, 春蜓科)

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摘 要 记述了小叶春蜓属中国的 4 种及 1 亚种, 描述了其中 1 新种。

间纹小叶春蜓, 新种 *Gomphidia interruptistria* **sp. nov.** (图 1~ 11)

正模 ♂, 云南省勐腊县瑶区, 海拔 1 000 m, 2004 07-
表 1 新种与 *G. k. kruegeri* 及 *G. k. fukienensis* 主要区别

28, 查岭生采。模式标本存放于陕西师范大学动物研究所。文中附有该属在我国的种检索表。

新种与 *G. k. kruegeri* 及 *G. k. fukienensis* 相似, 其主要区别见表 1。

词源: 新种的背条纹和领条纹, 以及背条纹和肩前上点均完全间断, 故取名间纹小叶春蜓。

| | 间纹小叶春蜓, 新种 <i>G. interruptistria</i> sp. nov. | <i>G. k. kruegeri</i> | <i>G. k. fukienensis</i> |
|---------------|---|-----------------------------------|----------------------------------|
| 前胸 | 无斑 | 具黄斑 | 具黄斑 |
| 合胸侧方第 2, 3 条纹 | 合并, 内无斑 | 合并, 内有黄斑 | 部分合并, 内有黄斑 |
| 翅前缘 | 全黑 | 嵌入黄色 | 嵌入黄色 |
| 肩前下条纹 | 缺 | 有 | 有 |
| 背条纹和领条纹 | 断开; 前者短而窄, 并与肩前上点断开 | 相连成 “7” | 接近但不相连; 前者长而阔, 与肩前上点形成 “7” |
| 腹部色彩 | 腹节 1~ 2 无斑; 腹节 7 扩大成基环纹; 腹节 8~ 10 全黑 | 腹节 1 无斑; 腹节 7 扩大成基环纹; 腹节 8, 10 有斑 | 腹节 1~ 2 有斑; 腹节 7 无斑; 腹节 8, 10 有斑 |
| 肛腹器 | 黑色 | 黑色 | 黄褐色 |

关键词 蜻蜓目, 春蜓科, 小叶春蜓属, 新种, 中国.

中图分类号 Q969.220.9